The LARC Journal

HI-Q

Volume 63 **January 1997** **Issue 621**

An ARNS Award Winning Newsletter Published Ten Times A Year

CLUB REPEATERS

VE3TBR
Phone: 767-7661
Rx/Tx: 146.820/(-) MHz

VE3YQT
Phone: 767-5492
Rx/Tx: 147.060/(-) MHz

VA3OLA
Rx/Tx: 53.050/(-) MHz

VE3BGA
Rx/Tx: 145.450/(-) MHz

WEEKLY BREAKFASTS
Saturdays 10:00 a.m.
Blue Parrot Restaurant

2 METRE NET
Mondays 7:00 p.m.
VE3YQT Repeater.

NEXT MEETING

THURSDAY
Jan
9

7:30 p.m. Room 207B
McIntyre Building
Confederation College

SHORTWAVES

Welcome to 1997! I hope that everyone enjoyed the Christmas and New Year holidays and didn't overdue it, too much. Seems that these last few years are dragging very slowly towards the end of the century and millennium. And, it's been a cold Christmas holiday, at least you don't have to shovel it.

Rob, VE3FLB sent me this email from the ARRL Newsletter concerning the reducing of the CW bulletin and practice sessions. W1AW schedule change: *"Starting January 1, 1997, W1AW will offer morning code practice and bulletins on Thursdays and Fridays only. Starting times will remain the same: code practice starts at 1400 UTC; the CW bulletins start at approximately 1500 UTC."*

However, Ray, K2HLR, has begun Morse code practice on 7058 kHz (+/-) starting at 1400 UTC daily. I've been listening to the broadcasts and they make for interesting listening at all speeds. Have a listen and drop name a QSL card to encourage him and let him know that others are listening.

If you read the *RAC Report by Pat, VA3GD*, you'll see that the loss of amateur radio spectrum has already begun. Havenot countries can make billions of needed dollars selling off the radio spectrum in their airspace. Unfortunately, radio signals don't start and stop or go around borders, which means only a relatively few, small countries in North America can directly impact on us.

Radio Amateurs of Canada sent all hams in Canada a slick membership drive mailing. If the cost of RAC membership, plus all the benefits that come with the membership don't appeal to you, ask how the hams in Guatemala, who didn't support their national organization feel today.

Governments don't legislate and protect hobbies. Commercial companies can offer billions, what can we offer, today? In 1912, the *Radio Act* gave nations control over the RF spectrum. It was the only way to sort out the chaos between government, commercial and amateur radio stations. Hams served as a trained technical radio pool in wartime and were given special status via the *Amateur Radio Service Act.* It's only by the support of Radio Amateurs of Canada that we can still lay claim to this special status. Unless, of course, you live in Guatemala.—Ed.

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Thunder Bay Voyageur Award

The Lakehead Amateur Radio Club in cooperation with the City of Thunder Bay, sponsors the Voyageur Award. Any SWL, scanner listener or ham monitoring or working 5 Thunder Bay amateur radio stations qualifies. Send your log copy with dates, times, frequencies, callsigns and $2.00 to the Awards Manager at the club address below.

Club and Newsletter Information

HI-Q is published by the Lakehead Amateur Radio Club, Inc., an Ontario registered non-profit corporation. The opinions expressed or implied in issues of *HI-Q* are those of the author. The LARC assumes no responsibility for the accuracy or the information submitted.

Material in *HI-Q* may be copied for non-profit use provided that credit is given to the source. Contributions related to amateur radio, especially those articles of interest to Northwestern Ontario amateurs are encouraged. Material can be submitted in WordPerfect® format or as a text file via fax: 807-345-2688, packet: VA3ROM@VE3TKA, voice mail: VE3TBR repeater user 159 or via email: rmazur@tbaytel.net. Send material or dated announcements no later than the 25th of the month that it is to appear.

To reduce costs, advertising at the following per issued rates is accepted: full-page—$60.00, 1/2 page—$40.00, 1/4 page—$20.00 and 1/8 page—$15.00. Reduced rates (1/3 off) are available upon receipt of advance payment for 10 issues (one full year). Send your ad copy and cheque (payable to the LARC) to the club address listed below. Advertising in *HI-Q* does not imply an endorsement or recommendation of the product or service.

LARC membership fees are set for the year as follows: regular—$30.00, associate—$20.00, associate (attending ham classes)—$90.00, student (attending school full-time)—$15.00 and family—$30.00 plus $10.00 for each additional family member living at the same address. *HI-Q* is sent to all LARC members but only one copy is mailed to each address.

Mailing Address

The Lakehead Amateur Radio Club, Inc., Suite 184, 1100C Memorial Avenue, Thunder Bay, ON, P7B 4A3, Canada.

Internet Home Page

Get your copy of *HI-Q* electronically at: http://www.tbaytel.net/lbougie/larc.htm.

CJ'97 Report

by Rob, VE3FLB

The LARC has plans well underway to provide assistance to the 1997 Canadian Scout Jamboree to be held in Thunder Bay, July 12-20.

CJ'97 is and will be a massive affair, drawing young people and their leaders, to our city, from all over Canada, the states and around the world. It is estimated that the population of Thunder Bay will increase by 15,000 people over those ten days. *All contained in the LPH field and south side of Boulevard Lake Park!—Ed.*

Obviously, an undertaking this large will take a complex organisation to run and the LARC will have an important role in several areas. On site communications involving security, safety, transportation and the myriad of unanticipated needs will be co-ordinated by Norm Bell, VE3XRC at the net control in St. Ignatius School. He will be using club and non-club members this operation.

The activity program for the Jamboree includes one entitled "Hamming It Up." Aimed towards the prospective ham it will be a 3 hour overview, delivered twice a day, to groups of 25 participants at a time. The material covered will be calculated to give an overview of the hobby and there will be an accent on hands-on participation in areas such as HF phone, VHF packet and SWL listening. The activity will be held in the same school, code-named "Scoutship Enterprise" for the Jamboree duration. This program is being co-ordinated by Rob Van Wyck, VE3FLB.

The third area that the LARC will be involved in, is a 24 hour amateur radio station. CJ3FW will be operating from the "Thunder Dome," the central area of the jamboree, and will provide message handling and opportunities for participants to contact friends and scouts from around the world. There will be a need for qualified amateurs to be on call at the station and we hope that many of our club members will be available and willing. More on how to become involved in next month's issue.—73, Rob.

RAC Membership Drive Extended

RAC has mailed brochures and advertising materials to all amateur radio license holders in Canada. An ambitious mailing of over 46,000 units. Amateurs taking out a new membership or renewing their present membership are to have their names entered into a prize drawing, a new FM mobile or hand held. The draw was to have taken place December 20, 1996 with all new or renewing memberships received by December 16, 1996 to qualify.

Due to the tardiness of the Postal system receipt of mailings have been very slow, particularly in the west, and it has been decided to delay the draw so all have a fair chance to participate.

All new or renewing memberships received by January 6, 1997 will qualify for the draw to be held on January 10, 1997. I think this is a very wise and fair decision by the membership committee. Please pass the news around. It will help increase participation.—73, Ken Oelke, VE6AFO, RAC AB/NT Director.

Meeting Minutes

by Norm, VE3XRC

Minutes of a Meeting of the Lakehead Amateur Radio Club held at Boston Pizza, Arthur Street, Thunder Bay, Ontario on December 12, 1996.

The meeting was called to order at 7:30 p.m. by the President VA3RIM, Ian Mellis with 30 members and guests in attendance.

Minutes of the previous meeting:
The minutes of the previous meeting held November 14, 1996 were published in detail in the December edition of *HI-Q* and mailed to all members. **Motion:** moved by VA3MOB, Maureen Bell and seconded by VE3RVA, Bob Hansen that the minutes be accepted as published. **Carried.**

Treasurer's Report:
In the absence of VE3GTX, John Watson, the Treasurer's report was presented by the secretary, VE3XRC, Norm Bell.

Balance as of October 31, 1996:

$ 2110.81

Income:

Membership Dues	340.00	
Student Fees	190.00	
Call Book	6.00	
Bank Interest	0.23	
50/50 Draw	14.50	
		550.73

Expenses:

Telephone	58.66	
Mail Boxes Etc.	290.70	
Con. College	30.00	
Bank Svc Charge	0.60	
		(379.96)

Balance as of November 30, 1996:

$ 2281.58

Motion: moved by VE3AJ, Bill Klemacki and seconded by VA3DVE, Dave Horne that the Treasurer's report be accepted. **Carried.**

Committee Reports:

Public Service: VE3ZG, Mike Nawrocki stated that the Beargrease Sled Dog Race will take place in January. VE3RVA, Bob Hansen is in charge of this event and has his operators lined up. The club has been approached to assist in the Northern Lights Winter Carnival in February. VE3XRC, Norm Bell will be in charge of this event and will be looking for volunteers once all the details are in place.

Ski Night: VE3AVS, Dave Kimpton announced that he is planning a night of cross country skiing tentatively planned for Thursday, February 27, 1997.

Adjournment: moved by VE3BHN, Bob Gillespie that the meeting be adjourned. **Carried.**

Entertainment: following the adjournment of the business meeting, the President turned the floor over to VA3EAP, Judy LeFevre. Royal Canadian Air Farce, look out! Judy, assisted by VE3PHU, Pat Pugh, VE3MJN, Marion Nawrocki, VE3XLB, Linda Bell and VA3MOB, Maureen Bell had the assembled group in stitches with their skits and antics. Several members of the club saw themselves as others see them (for those who missed the action, VE3ZG, Mike Nawrocki has it on tape).

Following the skits, Santa Claus (a.k.a. VE3SNW, Ed Baumann) made an appearance and passed out presents to all present (even those that had been naughty). Following the gift exchange, the LARC trio (VE3AVS, Dave Kimpton, VE3SNW, Ed Baumann and VA3WRL, Wayne Letang) led the assembled group in a Christmas sing-song.

Many thanks to the staff and management of Boston Pizza for their cooperation and special deals on the pizzas which made this an evening to remember.

(Odds & Ends continued from page8)
operator copy one sounder in a room full of clattering sounders. As the story goes, the more skillful operators looked on the practice with disdain and thus called their less-skilled brethren "lids."

Another practice was to use a wooden "listening stick" that you put between your ear and a sounder to amplify and filter the sound when noise in the radio room made copying difficult. Today, auto mechanics use the same idea to listen to engine valves. *Tnx to IBM ARC, March 1993, Allan Pelinat, KX2H.*

More Space News

On November 4th and 5th, 1996, an international conference was held at the NASA Johnson Space Center in Houston, Texas, to map out plans for a permanent amateur radio station on the International Space Station (America).

Delegates from eight member nations (Russia, Japan, Germany, Great Britain, Italy, Canada, France and the United States) attended this meeting.

This historic meeting laid a firm foundation for the future of crew-tended Amateur Radio in space. The international delegates jointly developed a draft Memorandum of Understanding (MOU) to promote the development of Amateur Radio on the International Space Station (ARISS).

The primary goals of the ARISS international group is to provide for the planning, coordination and performance of amateur radio projects on the Space Station.

Phase 3-D Satellite

The next generation of amateur satellite, the Phase 3-D had the first power-on testing of the spacecraft carried out on Saturday, November 16th. The tests were very successful.

Tnx IRTS Radio News Bulletin, Editor John, EI7DNB, via VE3TKA packet BBS.

Mobile Antenna Installation Guide

The top ten places to install a mobile antenna. (From excellent to fair.)

1. Centre of vehicle roof.
2. Centre of trunk or on hatch back.*
3. Mirror mount (trucks/vans/RVs.)
4. Right rear fender (passenger side.)
5. Left rear fender (driver side.)
6. Rear bumper mount (for long ant.)
7. Rear window glass mount.
8. Right front fender (passenger side.)
9. Side window/gutter mount.
10. Left front fender (driver side.)

*antenna tip should clear the roofline of the vehicle for best performance.

•always use 95% shield, high quality coaxial cable in vehicle installations to reduce interference to and from other electronic systems in the vehicle.

•never run antenna cables parallel or together with other vehicle cables or wires. If necessary, antenna cables should be positioned so that they cross other vehicle cables at 90-degree angles to reduce the possibility of interference.

•radio communications accessory equipment not suitable for mounting in the passenger compartment, should be mounted in the trunk of the vehicle. Never mount this equipment in the engine compartment, as it may lead to failure of the vehicle's electronics systems.

•glass mount antennas can only be used on non- or slightly tinted glass. Heavily tinted glass will impede antenna performance.

•many antenna failures are due to moisture entering and deteriorating the contact point where the antenna mates with the antenna cable. Use a good quality coax sealant to weatherize-waterproof the connection point where the antenna meets the antenna cable. Avoid using silicon glues, epoxies or rubber sealants for

(Continued on page6)

Letter of Appreciation

Sam Shonias
General Delivery
Gull Bay, ON P0T 1P0

December 9, 1996

Lakehead Amateur Radio Club, Inc.
Suite 184
1100C Memorial Avenue
Thunder Bay, ON P7B 4A3

RE: LETTER OF APPRECIATION

Dear Sirs;

It has been three years since I became active in finding ways to join the ranks of Amateur Radio. Prior to this, I was active on the eleven metre band. During one of my many visits to the Hamlet of Armstrong, in my former capacity of law enforcement, I was having coffee (hi, hi) with one of the OPP officers at a restaurant called Hanger 527.

The subject of our discussion was radio communications, antennas and leading to ham radio. A gentleman from a couple of tables away came to join us, we introduced ourselves and found out he was an amateur radio operator. When we parted company, this gentleman told us that he would send each of us a publication on Amateur Radio. Sure enough, a couple of weeks later, a package arrived in the mail containing the LARC Journal.

I read this copy from cover to cover with extreme interest, and noted the names and the phone numbers. I eventually ordered the *Study Guide and Question Bank for Basic Qualification*. It is very puzzling to this date that I do not know the name and callsign of the gentleman who pointed me in the right direction. Maybe someday I will get a change to meet him again and say "Thank you." I have no regrets about becoming an amateur radio operator but only wish that it could have been sooner.

I would like to extend my special thanks to Norm Bell, VE3XRC; "Skip" Wright, VE3BBS; and Wayne Letang, VA3WRL for taking the time to come to erect my tower and the hardware. Without this assistance, it would have been extremely expensive had this been done by commercial riggers. Considering the remoteness of Gull Bay, which is about 100 miles north of Thunder Bay. I would attribute that it is the spirit of Amateur Radio that people such as they go out of their way to help and use their expertise to promote the hobby.

I also wish to express my gratitude to Ed Baumann, VE3SNW, who was very encouraging, supportive, and extremely patient with me, especially when I was ready to quit and try it another day. Therefore, without this assistance and support that I received from all the Lakehead Amateur Radio Club members, in one way or the other, it would have been a much longer road to join the ranks of Amateur Radio for myself.

Someday, I hope that I will be able to repay this debt of gratitude to these members whom I have indicated by name, and to the rest of the LARC membership.

Merry Christmas and a very Happy New Year to everyone, and their families.

Yours very sincerely,

(Signed)

Sam Shonias, VA3SAM

RAC Report

by Pat, VA3GD

Radio Amateurs of Canada's mailing to all Canadian amateurs has been delayed in its passage through our postal system with some not received until the middle of December. The membership committee has made a decision to delay the prize draw for new memberships or renewals until January 10, 1997. All entries received by January 6, 1997 will be eligible for the draw of a VHF/UHF FM mobile (value $850.00) or one of two prizes of a handi-talkie. Think about it; the odds are excellent. You will never get a better chance of winning.

70cm Band Loss in Guatemala

On Monday November 18, 1996 Guatemala passed a new law to regulate telecommunications. As a result of this new law all the UHF and SHF bands will soon be sold to commercial interests in Guatemala.

Amateur allocations in the higher bands are: 50-54MHz, 144-148 MHz, 24-24.05 GHz, 47-47.2 GHz, 75.5-76 GHz, 142-144 GHz and 248-250 GHz.

The government will retain some of the remaining frequencies for their own use with the balance being up for auction to the highest bidder, for a term of 15 years. Guatemalan amateurs advised the government of our frequency usage, particularly on 70 cm (we are a secondary allocation) with no results. Amateur satellites will experience extreme interference problems when the transponders rebroadcast the commercial signals from transmitters located on the satellites input. It is my understanding the IARU (International Amateur Radio Union) Region 2 will be responding to this threat to our frequencies.

I will try to update this situation in my next report. There are also reports of Canada putting forth a proposal to establish wind profiler radars around 440-450 MHz. The pressure on the UHF and higher bands are really building up. In this age of increased communication, the UHF and higher bands are becoming an ever increasing source of revenue to cash starved governments. Amateur radio representative organization will have to address these intrusions vigorously to protect our frequency allocations.

DX Conditions

On the good news side, propagation on the HF bands *is* improving. The solar flux numbers have increased from a low of 65 to the high 80's and 90's. In fact, on one day, recently, it was up to 105. Bob Bishop, VE3JAB, who is into astronomy, reported at our last club meeting he is seeing a couple of new sunspots. Maybe the low is over and the cycle is on the way up. If you want to really understand the solar flux numbers you could enrol in university and study for a few years, or you can do as I do. Just remember that when the solar flux is high and the "A" and "K" indexes are low the MUF (maximum usable frequency) increases. WWV in Fort Collins, Colorado broadcasts the solar index figures on 2.5 MHz, 5.0 MHz, 10.0 MHz and 15.0 MHz at 18 minutes past the hour.

As the solar flux numbers increase, the skip on the higher bands (10 through 30 MHz opens up.) Twenty meters starts opening earlier in the morning and closing later at night. DX openings on 10 through 17 metre bands become more frequent. When the cycle is at its peak, 10 metres has been known to be open 24 hours per day. You can just crank your antenna around and follow the shift in propagation from sunrise to sunrise. Wire antennas will become world class DX chasers.

If you would like to find out more about the suns effect on radio propagation check out <http://holly.cc.uleth.ca/solar/> on the Internet. This a fabulous site run by the University of Lethbridge <http://www.uleth.ca>. You can even sign up for a course if you have the inclination, time and money. Now is the time for Basic amateurs to get that CW qualification. There is going to be an exciting new world of communications coming up, time to get on the band wagon.

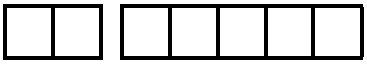
On behalf of myself and Radio Amateurs of Canada, I wish you all a Merry Christmas and a Happy New Year. May everyone enjoy good Health and Prosperity.—73, Pat Doherty, VA3GD, Director–Ontario North.

Ham Puzzler

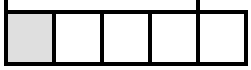
by Dave, VE3AVS

Unscramble the four jumbled words. Then arrange the shaded letters to form a word or words associated with the call sign shown below. Answer in next month's *HI-Q*.

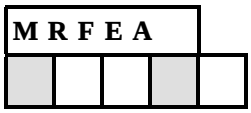
V E 3 B C D



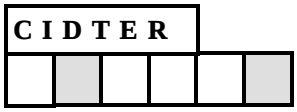
A D O R I



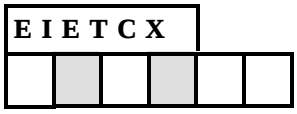
M R F E A



C I D T E R



E I E T C X



Last month's answer:

VE3AJ = "MORSE CODE"

DIODE, WAVES, BEAMED, CORNER

Canada at your Fingers

Andy, VE3INI, submitted this information on IPARN from their information sheet.—Ed.

What is IPARN? IPARN Canada is a national organization for Canadian Amateurs. IPARN is building a full time, Canada wide communications network. IPARN is doing this by using a geostationary satellite to interconnect existing VHF/UHF terrestrial networks. This will let Canadian amateurs communicate throughout the country by using their handheld radios on their local repeater network.

Is the network operational yet? Yes! The first satellite interconnect became operational on June 15, 1990, connecting repeater networks in both Alberta and British Columbia. On June 14th, 1992, Ontario was added to the network, increasing the capacity dramatically. In June 1995, Halifax, NS was added. St. John's, NF is expected to be online soon.

Where will the next connection be? Membership support is the key to the development of the network. Eventually, the system will reach all parts of Canada that have local terrestrial networks wishing to be part of IPARN. In addition, there may come a time when IPARN can included individual repeaters in remote areas that are not part of a network. With your help, IPARN will be able to expand into every province and territory much sooner.

Will the IPARN network also include Packet radio? Yes! IPARN will be initiating Packet operation with the installation of the Halifax terminal. Packet will initially be between Halifax and Vancouver. When the St. John's terminal is installed, it will also have Packet capability. The existing terminals will be upgraded as soon as possible after that time to include Packet radio.

Will I have to be a member of both the voice and Packet systems? Membership in IPARN will give all members access to both the voice and packet systems.

Will I need control codes to access other parts of the network? Yes. Coordinated coding has already been established and the satellite terminals will also have DTMF access codes. Members will be provided with the latest codes in the Member Information package.

Why is it a good idea for me to join IPARN when I live outside the coverage area? IPARN will eventually reach all parts of Canada. By joining now, you will bring the network to your area that much sooner! In addition, when the network comes to your area, you will be an informed users. Many people join just for the network information.

What will the IPARN network be used for? Nets, traffic handling, data/packet transmissions, QSOs with hams from coast to coast with a handheld! A readable addition for HF traffic operations and better emergency communications.

Where else in the world has this been done. No where! IPARN is the first and only amateur organization in the world to build a full time national satellite network for radio amateurs. Canadian hams are leading the world in communications technology. This is your opportunity to be a part of amateur radio history!

Where can I get more information on IPARN? Drop a note to: IPARN, Department 95, P.O. Box 3156, Langley, BC, V3A 4R5 for more information on the IPARN network; membership and operations manual. One year membership is $36.00, the IPARN manual is $19.95 which includes the binder, shipping and revisions.

(Antenna Guide continued from page4)

this application, because they contain acids that vapourize during the curing process. These acids can oxidize or destroy the electrical connection point required for optimum performance.

•when two or more mobile antennas are installed on a vehicle, for best performance they should be placed not less than one-quarter wavelength apart, based on the antenna with the lowest operating frequency. This distance is calculated by using the formula 2592/f (MHz) = distance in inches.

•it is recommended that the VSWR of the antenna be checked on an annual basis to ensure maximum performance. At this time, examine the antenna connectors, cables, mounts and the vehicle radio system. It is better to perform preventative maintenance inspections rather than to absorb the cost of equipment failure.

•never touch or hold an antenna while transmitting or allow anyone to come into contact with your antenna system when you are transmitting. Extremely high radio frequency voltage exists at the tip of a mobile antenna. This is why a ball is machined onto the end of a mobile antenna to minimize arcing and corona discharge.

•use the lowest power required to maintain a radio contact. The head and body in a vehicle are in the near RF field of a mobile antenna. The higher the transmitting frequency used (VHF to UHF), the longer the exposure and the higher the power used, the greater the biological hazard to the operator. Check the passenger compartment using an RF field strength meter to locate RF "hot spots."

From Antennalog, published by Turtle Antennas, pgs. 18 & 19.

LARC 1997 Membership List

The following is the current membership list for the Lakehead Amateur Radio Club for the year 1997. Included are student, associate, family, life and regular members.

Any errors or omissions from the list should be brought to the attention of the club executive. ***This list is current as of December 1st, 1996 and may not reflect any changes made to this list after that date. There are still outstanding membership fees. Again, if you haven't paid your 1997 fees, GET IT DONE NOW! If you don't plan on renewing your membership, as a courtesy, advise the club executive.****—Ed.*

Student Jim Massey
Student Claudette Shoup
Student Bob Barker
Student Rod McLeod
Student James Tocker
Student David Droppo
Student Chris LeBrun

VA2CK Gary Spence
VA3AAA Stanley Voogt
VA3AIV Andy Ivanic
VA3AMY Al Sokoloski
VA3BEL Vic Bel
VA3BRI Brian Fedoruk
VA3BRN Gerry Burney
VA3DIZ Patrick Wilson
VA3DJS Daniel Simko
VA3DLK Derrick Rusnick
VA3DPB Don Bel
VA3DPK Dave Kovacs
VA3DVE Dave Horne
VA3EAP Judy LeFevre
VA3EI Wally J. Tokar
VA3ER Ed Rehfuhs
VA3GD Pat Doherty
VA3GEC Gary Curran
VA3GOT Randy Gottfred
VA3IOU Alan Parnell
VA3JMS John Sacek
VA3JPC Jim Cheppenko
VA3KBJ Karel Brozak
VA3KNS Ken Macko
VA3LEB Len Bougie
VA3LOG Wayne Hutsul
VA3MOB Maureen Bell
VA3NES William Bell
VA3PEP Carl Storry
VA3RIM Ian Mellis
VA3ROM Robert C. Mazur
VA3SAL Sal Farno
VA3SAM Sam Shonias
VA3TFS Terry Saunders
VA3TFW Tom Welden
VA3VJH Vern Hicks
VA3WOX Markku Lahti
VA3WRL Wayne Letang
VA3XC Bob Mitchell
VA3XRO Terry Nishibata
VE3AFF Cliff Grove
VE3AJ Bill Klemacki
VE3ARN Bill Roberts
VE3AVS Dave Kimpton
VE3AXL Phil Moorey
VE3AZB Alan Bate
VE3BBS Larry Wright
VE3BCD Laurie Bridgett
VE3BHN Bob Gillespie
VE3BKY Bert Lambert
VE3BOG John Boggett
VE3BQZ Bert Brazeau
VE3CAP Don Wright
VE3CH Ray T. Greer
VE3DDZ Dolores Fiske
VE3DJM Murray Fox
VE3DP Stephen Bush
VE3DPJ Peter Boyle
VE3DQS Susan Darling
VE3DWP Daniel Darling
VE3DZR Dwayne Randle
VE3EBL Erik Lehtinen
VE3EDW Hugh Elliott
VE3EDX Mike Skillen
VE3EDZ Ray Forslund
VE3EEI Matti Nummelin
VE3EFZ Ken Rusnak
VE3ELV Betty Loveday
VE3EMI John Kaleta
VE3EVJ Dennis Lowe
VE3FLB Rob Van Wyck
VE3FLM Gary Gilbert
VE3FTS Bill Matthews
VE3GTX John Watson
VE3GWT Garry Michaluk
VE3HWA Archie Hogan
VE3HZW Mike Wolowich
VE3ICY Glen Wallace
VE3INI Andy Malcolm
VE3JAB Bob Bishop
VE3JAJ Les Brown
VE3JQ Keith Fiske
VE3JXR Julie Dixon
VE3KRH Steve Robb
VE3KRM Martin De Hoop
VE3KRV Vlad Kruzick
VE3KRZ Gerry Lyngstad
VE3KV Len Catillo
VE3KVJ Ken Wright
VE3LME Ivan Sherlock
VE3LMI Rob Shaw
VE3LMM William Astle
VE3LMT Bob Hartley
VE3LMV Bill Wainio
VE3MEN Mel Simenac
VE3MJN Marion Nawrocki
VE3MPT Manuel Migueis
VE3NCN Joan Klemacki
VE3NDZ Nevelle Denetto
VE3NEQ John Ney
VE3NHX Lindo Scalese
VE3NPS Nestor Procup
VE3OPF Axel Rehfuss
VE3OPI Richard Barry
VE3OTK Kelly Jordan
VE3OTV Katerina Rehfuss
VE3OTW Dan Driscoll
VE3OTZ Frank Pianka
VE3PHL John Kuzma
VE3PHU Pat Pugh
VE3PMY Norm Wright
VE3RJR Bob McLean
VE3RTX Anton North
VE3RUE Eric Rupprecht
VE3RVA Bob Hansen
VE3RZL Robert Loveday
VE3SLY Primo Scalzo
VE3SNW Ed Baumann
VE3TKA Terry Stewardson
VE3TKO Shawn Collins
VE3TRE Gwen Anderson
VE3UA Jim O'Brien
VE3UQM Walter Sitko
VE3VGV Martin Cheredaryk
VE3VUK Mark Vukovich
VE3WF John Hastie
VE3XAL Al Foley
VE3XAW Annabelle Randle
VE3XET Eric Todd
VE3XIC Harold Adams
VE3XJD Jim Dixon
VE3XJR Jeff Regan
VE3XLB Linda Bell
VE3XRC Norm Bell
VE3XT Bill Unger
VE3YTB Tom Porett
VE3YYM William Link
VE3ZG Mike Nawrocki
VE3ZZA Ann Droppo

Hidetsugu Yagi, 1886-1976

Many antenna designs bear the names of their developers but few names have become so thoroughly a part of the radio language as "Yagi." Perhaps the ultimate tribute to the man who probably was the first to use parasitic elements in directive arrays is that his invention is often spelled "yagi," now essentially a generic term in the dictionary.

Professor Yagi, a quiet man, who gave much of the credit for the practical development of his ideas to his assistants, Uda and Okabe, died of heart complications in Tokyo, on January 19th, 1976, at the each of 89.

Though the Yagi-Uda work with parasitic arrays was done in the early 1920s, it appeared to have received little notice in the Occidental world until 1928, when Yagi visited the United States and presented papers before meetings of the Institute of Radio Engineers in New York, Boston and Hartford.

It may come as a surprise to modern amateur radio antenna developers and experimenters to learn that the development of parasitic arrays was only part of Professor Yagi's extensive research and development program, carried out on the ultrahigh frequencies at the College of Engineering of the Imperial University, Sendai, Japan, in 1926 and earlier.

While Uda worked on antennas, Okabe was busy on the development of a means for generating power on frequencies as high as 2500 MHz! They had split-anode magnetrons working on wavelengths from 200 cm to 12 cm and much of the antenna work was done around 40 cm.

The Yagi papers, *IRE Proceedings*, June, 1928, remarkably complete and advanced for the time, still make interesting reading. They were given fulsome praise by the late Dr. J.H. Dellinger, long-time chief of the Radio Division of the U.S. Bureau of Standards, himself one of America's distinguished pioneer radio physicists: "Never have I listened to a paper that I felt so sure was destined to become a classic."

With permission from the ARRL. Tnx to QST, Strays, April, 1996, pg. 41. Author W1HDQ.

As an aside, I wonder how much of Yagi's work would have solely benefited the war effect of the Japanese Imperial Forces, during World War II, if he had not come to the United States to present his famous paper. Yagi spoke and wrote in excellent technical English and thus was able to impress upon his American counterparts the outstanding nature of Uda's work.

Had he not come to America and shared this work so freely, the outcome of the War in the Pacific could have been totally different. Today, in order to recognize and honour Uda, whose work Yagi translated into English, we use the proper term Yagi-Uda as the name for the classic parasitic array.

Hams have taken the Yagi-Uda design and pushed it to new limits and proven new design theories that have out engineered the engineers!—Ed.

Odds & Ends

The *Ham Radio and More* Show, hosted by Len Winkler, KB7LPW is aback on the shortwave bands, live on WWCR. *Ham Radio and More* returned to WWCR shortwave on November 3, 1996. The live broadcast airs at 6 p.m. EST Sundays, on 5.070 MHz and listeners can call and participate on the air.

The show lost its live slot when WWCR pre-sold all time on transmitter number four to a religious broadcaster. Delayed broadcasts did continued and still can be heard at 10 p.m. EST Mondays, on 3.210 MHz.

But hams around the world were not happy having to wait a day to hear a replay of the show that they normally telephoned live. A letter-writing campaign to WWCR took root. It is believed that that campaign helped WWCR to change its mind and find a new home for *Ham Radio and More* on another available transmitter.

MIR QSL Cards

Dave Larsen, N6JLH, is the U.S. MIR QSL manager for contacts made with crew members aboard the MIR space station. QSL cards must include date, time and mode of contact. Cards for SWL reports are not handled by Dave.

If a contact is made with the MIR packet radio personal message system, then the message number issued should be included on the QSL card.

QSLs must be accompanied by a business-sized SASE and sent to: Dave Larsen, N6JLH, P.O. Box 1501, Pine Grove, CA, 95665.

MIR 2m Frequencies

The MIR packet radio frequency is 145.550 MHz (up/downlink). The 2 metre FM voice frequencies are 145.800 MHz (uplink) and 145.200 MHz (downlink). Occasionally, 145.550 will be used as a voice frequency initiated by a MIR crew member. *MIR overflies the Thunder Bay area several times a week and has a usable packet signal that lasts for about 10-15 minutes.—Ed.*

Tnx to Worldradio, January 1997 issue.

Origin of the term "Lid"

Some say that the term "lid" came from the early landline Morse telegraph days, when a common practice was to fasten an empty tobacco car or its lid, to the armature of a telegraph sounder—producing a distinctive sound that helped an

(Continued on page3)